

WHAT IS CLAIMED IS:

1. A method for selecting a I/O buffer, comprising:
 - providing a plurality of I/O buffers, each one having a different performance characteristic, each one of the plurality of I/O buffers being coupled to a receiving device through a corresponding one of a plurality of transmission lines;
 - driving each one of the plurality of buffers with a logic signal, each one of the transmission lines producing a corresponding output logic signal;
 - observing the output signal produced by the plurality of buffers; and
 - selecting one of the plurality of I/O buffers in accordance with the observed output signal produced by each of the plurality of buffers.
2. The method recited in claim 1 wherein the selecting comprises selecting one of the plurality of I/O buffers in accordance with a predetermined criteria of the observed output signal produced by each of the plurality of buffers.
3. The method recited in claim 2 wherein the driving comprises driving each one of the plurality of buffers with a train of logic signals, each one of the transmission lines producing a corresponding series of output logic signals; the observing comprises observing the plurality of output signals; and the selecting comprises selecting one of the plurality of I/O buffers in accordance with a predetermined criteria of the observed output signals.
4. A method for selecting a I/O buffer, comprising:
 - (a) providing a plurality of I/O buffers, each one of the plurality of I/O buffers having a different programmed performance characteristic, each one of the programmed plurality of I/O buffers being coupled to a receiving device through a corresponding one of a plurality of transmission lines;
 - (b) driving each one of the plurality of programmed buffers with a logic signal, each one of the transmission lines producing a corresponding output logic signals;
 - (c) observing the plurality of output signals is observed;

(d) selecting one, or ones, of the plurality of I/O buffers in accordance with whether the observed output signal produced by each of the plurality of buffers meet a predetermined criterion;

(e) programming the plurality of I/O buffers with the performance characteristics of one the selected plurality of I/O buffers;

(f) driving each one of the programmed plurality of buffers having with the performance characteristics of one of the selected plurality of I/O buffers ,each one of the transmission lines producing a corresponding output logic signal;

(g) observing the plurality of output signals in (f);

(h) if the plurality of observed output signals in (f) meet the predetermined criteria, the process is complete and the selected type will be applied to the final design; otherwise, if the plurality of observed output signals in (f) fail to meet the predetermined criteria criteria, another one of buffer types meeting the selection process in (d) is selected and the method returns to (e).

5. A system for selecting a I/O buffer, comprising:

a plurality of I/O buffers, each one having a different performance characteristic;

a plurality of transmission lines;

a receiving device coupled to the plurality of I/O buffers through a corresponding one of the plurality of transmission lines;

a logic pulse generator for driving each one of the plurality of buffers with a logic signal, each one of the transmission lines producing a corresponding output logic signal; and

a signal analyzer for observing the output signal produced by the plurality of buffers.